

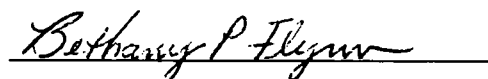
**Quarterly Progress Report  
October - December 1994  
Boise, Idaho**

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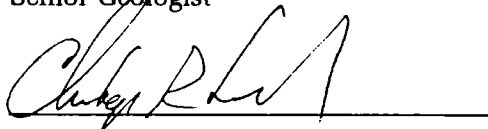
Prepared for

**Van Waters & Rogers Inc.**  
6100 Carillon Point  
Kirkland, Washington 98033

HLA Project No. 22947 03



Bethany P. Flynn  
Senior Geologist



Christopher R. Smith, P.G. 736  
Principal Hydrogeologist

December 28, 1994



**Harding Lawson Associates**  
Engineering and Environmental Services  
105 Digital Drive, P.O. Box 6107  
Novato, California 94948 - (415) 883-0112

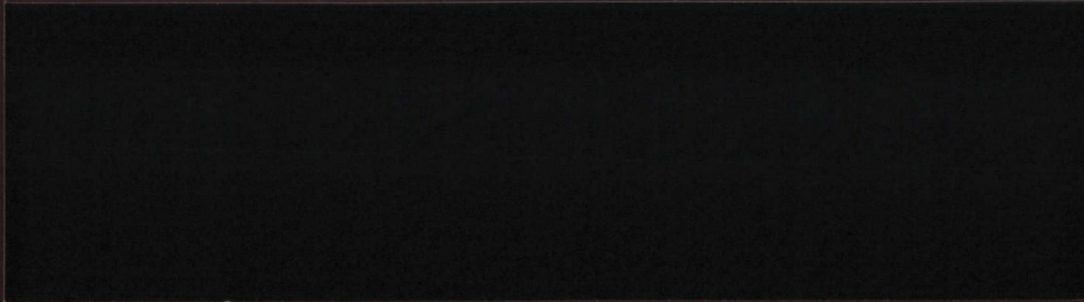
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1	WATER LEVEL HYDROGRAPH FOR SUNRISE WELL
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### DISTRIBUTION

## EXECUTIVE SUMMARY

This progress report presents data collected and summarizes activities performed in association with ongoing investigations by VW&R in Boise, Idaho, from September 23, 1994 through December 23, 1994. Activities to be conducted during the next reporting period are also presented.

Activities conducted under the Water Supply Order during the reporting period include:

- Connecting residents to the Boise Water Corporation (BWC) water system as authorization is received by VW&R
- Conducting quarterly sampling
- Following up on the well data survey form and authorization requests to residents within the Affected Area to conduct investigative activities and collect water samples from deep domestic wells or wells having unknown depths
- Sampling of wells where authorization was received.

Work planned for the next reporting period includes:

- Resampling wells with tetrachloroethylene (perc) concentrations above the analytical detection limit but below 5 micrograms per liter ( $\mu\text{g/l}$ ) and other selected wells in the Preliminary Study Area, (PSA) as part of a quarterly sampling program
- Continuing water line connections as authorizations are received and reimbursement for 1 year of BWC utility costs
- Continuing to evaluate well evaluation responses received from residents and follow up on unreturned forms
- Conduct well evaluation activities.

Activities conducted under the PSA Order during the reporting period include:

- Continued production of the Phase I Site Investigation Report
- Sampling the monitoring well at 2212 N. Sunrise Avenue
- Monitoring the transducer and data logger installed in the Sunrise Well
- Submitting a Geophysical SAP
- Obtained access agreement for the installation of monitoring wells and the monitoring/extraction well. Continuing access negotiations for siting a groundwater treatment system.

Activities to be conducted under the PSA Order during the next reporting period include:

- Install one monitoring/extraction well along N. Five Mile Road in accordance with the Soil Boring SAP
- Install two groundwater monitoring wells in accordance with the Interim Remedial Measures Work Plan
- Submit the Phase I Site Investigation report

Work conducted under the Mall Order during the reporting period included:

- Submitting the Final Mall Risk Assessment
- Submitting the Final Draft Mall Site Investigation Report/Remedial Action Plan
- Holding Public Workshop at which the results of the Site Investigation and the Remedial Action Plan were presented.
- Monitoring the soil vapor extraction system in accordance with permit requirements.

Work planned for the next reporting period in association with the Mall Order includes:

- Monitoring the soil vapor extraction system

- Continue negotiations related to siting a groundwater treatment system at the mall
- Respond to public comments and finalize the Site Investigation Report/Remedial Action Plan.

## 1.0 INTRODUCTION

This progress report presents data collected and summarizes activities performed in association with ongoing Van Waters & Rogers Inc. (VW&R) investigations in Boise, Idaho, from September 23, 1994 through December 23, 1994. This progress report has been prepared by Harding Lawson Associates (HLA) for the sole use of VW&R and the State of Idaho Department of Health and Welfare, Division of Environmental Quality (Department), the only intended beneficiaries of our work. No other party should rely on the information contained herein without prior written consent of HLA.

This report has been prepared to meet the requirements of the Consent Orders dated October 9, 1992 (Boise Mall and Preliminary Study Area [PSA] Orders), between VW&R and the Department. The scope of work for this report was originally outlined in *Exhibit 3, Work Plan, Boise Town Square Mall Supplemental Investigation and Final Remediation, Boise, Idaho (HLA, 1992a)*. This report presents a summary of activities conducted during the reporting period and activities to be conducted during the next reporting period associated with the Water Supply Order dated January 3, 1992, and the PSA and Boise Mall Orders.

## 2.0 WATER SUPPLY ORDER

### 2.1 Work Conducted During the Reporting Period

Activities conducted under the Water Supply Order (WSO) during the reporting period included:

- Connecting residents to the Boise Water Corporation (BWC) water system as authorization is received by VW&R
- Conducting quarterly sampling of wells historically containing tetrachloroethylene (perc) above the analytical detection limit but below the EPA's maximum contaminant level (MCL) of 5 micrograms per liter ( $\mu\text{g/l}$ ) and other select wells
- Following up on the well data survey form and authorization request to residents within the Affected Area to conduct investigative activities and collect water samples from domestic wells having unknown depths or depths greater than 75 feet
- Sampling of wells in the affected area where authorization was received.

#### 2.1.1 Quarterly Sampling

In accordance with requirements of the WSO, wells containing perc concentrations above the analytical detection limit but below the MCL of 5  $\mu\text{g/l}$  and other selected indicator wells were sampled to monitor the dissolved perc concentration in groundwater. Groundwater sampling was conducted on November 8 and 9, 1994. Prior to sampling, authorization was obtained from well owners to collect samples from their wells. Two wells normally sampled as part of the regular quarterly monitoring program were not sampled due to an inoperative pump at one location and due to shut off of the irrigation system at the other. Additionally, the monitoring well at 2212 Sunrise Avenue was sampled.

Sample collection activities were performed in accordance with the Quality Assurance Project Plan (QAPP) and are described in the following

sections (HLA, 1992b). The sampling method used to collect groundwater samples from the private wells was a function of well construction and access. In general, wells were purged with their installed pumps for a minimum of 5 minutes and until the pH, temperature, and conductivity readings stabilized. Following purging activities, groundwater samples were collected from the discharge line at the access point closest to each well. The Sunrise monitoring well was purged a maximum of three well volumes using a polyvinyl chloride (PVC) bailer, and then sampled using a stainless steel bailer. All samples were placed in sample containers appropriate for the required analysis. All samples were placed in a cooler that was chilled to a temperature of approximately 4 degrees Celsius and sent under chain of custody via overnight courier to Analytical Technologies, Inc. (ATI), Renton, Washington.

Duplicate samples were collected from 1 well and laboratory-prepared trip blanks were shipped in the coolers along with the well samples to the analytical laboratory.

All samples were analyzed by ATI for halogenated volatile organic compounds (VOCs) using EPA Test Method 8010. Specific analytical results obtained from private well samples are confidential. Two samples collected from an indicator well contained perc at concentrations up to 260  $\mu\text{g/l}$  which is greater than the EPA's MCL of 5  $\mu\text{g/l}$ . The concentrations detected in the indicator well correspond to concentrations previously detected. One additional sample contained perc at a concentration of 5.8  $\mu\text{g/l}$  which is also above the MCL. Perc was also detected in 9 of 10 samples from other wells at concentrations up to 2.7  $\mu\text{g/l}$  which is above the detection limit but below the MCL. Trichloroethene (TCE) was detected in two well samples at concentrations of 0.7  $\mu\text{g/l}$  and 1.0  $\mu\text{g/l}$ . The concentration of TCE detected at this location corresponds to previously detected concentrations. 1,1,1-Trichloroethane (1,1,1-TCA) was detected in one well sample at the detection limit of 0.2  $\mu\text{g/l}$ . It was also detected at 0.2  $\mu\text{g/l}$  in the previous sampling

event. Methylene chloride was detected at a concentration of 3.7  $\mu\text{g/l}$  in one well and trichlorofluoromethane was detected at concentrations of 0.5 and 0.9  $\mu\text{g/l}$  in two wells. Trichlorofluoromethane was detected in a sample from a different well in previous sampling rounds. It is suspected that the methylene chloride and trichlorofluoromethane detections are the result of laboratory contamination. These suspect detections will be evaluated further at the next sampling event. Halogenated VOCs were not detected in the trip blank.

Evaluation of quality assurance/quality control data indicated that the data are accurate and precise (Table 1). The data also met the method-specified holding times. Overall completeness was 100 percent and exceeds the goals specified in the QAPP (HLA, 1992b).

The individual results of the sample analyses have been provided under separate cover to each of the respective well owners.

### **2.1.2 Well Evaluation and Sampling Request**

Residents who were mailed sampling request forms, but had not returned the forms were contacted by telephone to make sure the forms were received to encourage return of the forms, and to obtain approval to evaluate well construction details and sample. Of the 31 requests mailed to date 9 written and 5 verbal approvals have been obtained for sampling. Four approvals for well construction evaluation have been received. Three residences declined both sampling and well construction evaluation, and 10 residences could not be contacted. Six residences have been sampled as discussed in Section 2.1.3. The schedule for this program is dependent on the response to the sampling request form. Sampling as part of the well evaluation effort began in late September.

### **2.1.3 Additional Well Sampling**

Wells at residences that returned the well evaluation and sampling forms authorizing sampling were sampled on September 28 and 29 and November 11 along with 3 wells which were sampled to supplement data on the well closure activities under the Water Supply Order. The

data are also being used in the PSA Phase I reporting activities.

Sample collection activities were performed in accordance with the QAPP as discussed above in Section 2.1.1. Duplicate samples were collected from 1 well and laboratory prepared trip blanks were shipped in the coolers along with the well samples to the analytical laboratory.

All samples were analyzed by ATI for halogenated VOCs using EPA Test Method 8010. Specific analytical results from private well samples are confidential. Two samples contained perc at concentrations of up to 390  $\mu\text{g/l}$ , which is greater than the EPA's MCL of 5  $\mu\text{g/l}$ . Perc was also detected in 4 of 7 samples from other wells at concentrations up to 4.2  $\mu\text{g/l}$  which is above the detection limit but below the MCL. TCE was detected in 3 well samples at concentrations of up to 1.4  $\mu\text{g/l}$ . 1,2 dichloroethene was detected at a concentration of 0.7  $\mu\text{g/l}$ . Halogenated VOCs were not detected in the trip blank.

Evaluation of the quality assurance/quality control data indicated that the data are accurate and precise (Table 2). The data also met the method specified holding times. Overall completeness was 97.5 percent and exceeds the goals specified in the QAPP (HLA, 1992).

The individual results of the sample analyses have been provided under separate cover to each of the respective well owners.

### **2.2 Work Planned for Next Reporting Period**

Wells with concentrations of perc above the analytical detection limit but below the MCL of 5  $\mu\text{g/l}$  and other selected wells will continue to be sampled on a quarterly basis. Sampling activities for the first quarter of 1995 are currently scheduled for mid-February.

Activities relating to well evaluation associated with the WSO will continue during the next quarter. Followup enquiries will be made to 10 residents who have not responded to, or could not be contacted about, the well evaluation and sampling form. Additional groundwater samples will be collected from wells where authorization



has been granted. Evaluation of well construction details and hydrogeologic characteristics will also begin.

Connections to water mains will continue during the next reporting period until all connections are completed for properties whose owners have provided written authorization to VW&R. Reimbursement for 1 year of BWC water utility costs continues for west Boise residents as requests are received by VW&R.

### 3.0 PRELIMINARY STUDY AREA ORDER

#### 3.1 Work Conducted During the Reporting Period

Activities conducted under the Preliminary Study Area (PSA) Order during the reporting period included:

- Continuing Site Investigation report preparation and Risk Assessment activities
- Sampling the monitoring well at 2212 N. Sunrise Avenue
- Monitoring the transducer and data logger installed in the Sunrise Well
- Submitting the Geophysics SAP
- Continuing access negotiations with property owners for the installation of monitoring wells and the monitoring/extraction well and siting a groundwater treatment system.

##### 3.1.1 Site Characterization and Risk Assessment Activities

Site characterization activities and the risk assessment for the PSA are continuing. Data collected during this quarter will be evaluated in the Phase I report and as part of the risk assessment.

##### 3.1.2 Monitoring Well Sampling

The monitoring well at 2212 N. Sunrise Avenue was sampled as part of the regularly scheduled quarterly sampling program. The results have been included in the WSO section of this report but are also reported here. Prior to sampling, three well volumes of water were removed from the well using a clean PVC bailer. The well was then sampled with a stainless steel bailer following procedures described in the QAPP (HLA, 1992b). The sample was analyzed for VOCs using EPA Test Method 8010. Perc was detected in the well sample at a concentration of  $0.3 \mu\text{g/l}$ . The detection level for perc is  $0.2 \mu\text{g/l}$ . No other VOCs were detected in the well sample.

#### 3.1.3 Sunrise Well - Water Level Monitoring

Water level data collected from the Sunrise Well during the reporting period indicate the shallow aquifer is not affected by pumping of the Bali Hai Community Well but may be recharged during the irrigation season. The depth to water decreased during the irrigation season (water levels increased) and began increasing (water levels decreased) at the end of September through November after the irrigation season ended. The water levels indicate that the water level in the well is affected by recharge due to irrigation and, apparently not by pumping of the Bali Hai well (Plate 1). Evaluation of the Bali Hai Well and potential impacts on the shallow aquifer will continue.

##### 3.1.4 Geophysical Sampling and Analysis Plan

The Geophysical Sampling and Analysis Plan (SAP) was submitted to the Department on October 25, 1994. The purpose of the SAP was to recommend additional geophysical work in the PSA, if necessary. Conclusions and recommendations of the Geophysical SAP are as follows:

- On the basis of the geophysical data collected to date, and lithologic data from boring logs it appears that the geology of the PSA is similar to that of the Mall consisting primarily of medium-to-coarse grained sands and gravel with varying amounts of clays and silts in the upper 130 to 160 feet. The first strong reflectors which could indicate lower permeability layers or clay are not present until depths of 150 feet or more.
- The results of chemical sampling indicate that the perc contamination is confined to the upper 50 to 100 feet below ground surface at both the Mall and within the PSA (HLA, 1994c,d)
- It does not appear that additional seismic reflection data on the extent of deep

reflectors within the PSA would be necessary because perc is shallow, well above the deep reflectors, therefore these deep reflectors are expected to have little to no influence on the migration behavior of perc in the aquifer

wells will be used to monitor the effectiveness of the interim remedial measures.

- It does not appear that additional source characterization using geophysical techniques such as ground penetrating radar (GPR) or electromagnetics (EM) within the PSA would be necessary downgradient of the Westpark Area because additional source areas within the PSA are not indicated based on groundwater analytical data from the PSA
- Additional downhole geophysical data will be collected as part of the water supply order activities for identifying well depths within the affected area. This information will be reviewed to evaluate the potential for lower permeability units in the upper-most portion of the subsurface. Additional work may be recommended if the geophysical data indicate the presence of lower permeability units within the portion of the aquifer that has been impacted by perc.

The department approved the Geophysical SAP on November 22, 1994.

### **3.2 Work Planned for the Next Reporting Period**

Work activities associated with completion of the PSA Risk Assessment and Phase I PSA will continue during the next quarter.

Access has been obtained for installation of the northernmost monitoring/extraction well along N. Five Mile Road in accordance with the PSA Soil Boring SAP (HLA, 1993b). Access negotiations for installation of the treatment system will continue.

The draft Phase I PSA Site Investigation (SI) report will be submitted to the Department.

Two additional groundwater monitoring wells will be installed along N. Five Mile Road as part of the IRM Work Plan. Groundwater samples will be collected from all four of the monitoring wells associated with the IRM Work Plan. These

## **4.0 BOISE MALL ORDER**

### **4.1 Work Conducted During the Reporting Period**

The following activities were conducted during the reporting period:

- Submitting the Final Mall Risk Assessment
- Submitting the Final Draft Mall Site Investigation Report/Remedial Action Plan
- Holding a public workshop at which the results of the Site Investigation and the Remedial Action Plan were presented
- Monitoring the soil vapor extraction system and collecting air samples in accordance with permit requirements.

#### **4.1.1 Final Mall Risk Assessment - Response to Comments**

The Final Mall Risk Assessment was submitted to the department on October 17, 1994 following written approval of the Response to the Departments comments on the draft.

#### **4.1.2 Mail Site Investigation Report/Remedial Action Plan**

The Final Draft Mall Site Investigation Report/Remedial Action Plan (SI/RAP) was submitted to the Department on November 2, 1994. The purpose of the SI was to assess the nature and extent of VOCs in soil, soil gas, and groundwater; identify potential migration pathways and potential receptors; and evaluate the potential risk to human health and the environment. Conclusions of the SI/RAP are as follows:

- Soil above the water table is no longer considered to be a source of PCE at the site and, therefore, will not require any additional remediation.
- Dissolved perc is present in the upper 100 feet below ground surface in the

immediate vicinity of the former perc aboveground storage tank (AST), and the upper 75 feet below ground surface downgradient of the former perc AST.

- The Risk Assessment concluded that remediation of the groundwater is not necessary to protect human health or the environment with respect to the complete exposure pathways identified for the site. Groundwater remediation will commence, nonetheless, to prevent migration of VOCs downgradient of locations where other types of exposure may occur to human and/or ecological receptors.

The purpose of the remedial action plan was to develop remedial goals; identify, screen, and evaluate remedial technologies considered applicable to the site-specific conditions; and develop appropriate remedial alternatives.

The evaluation of remedial alternatives showed that air sparging and vapor extraction coupled with groundwater extraction and treatment using either carbonaceous adsorbent or air stripping would be effective in the long term, implementable, reduce potential excess risk to downgradient receptors and comply with applicable or relevant and appropriate requirements (ARARs) for groundwater.

#### **4.1.3 Public Workshop**

A public workshop was held on November 10, 1994 at which the results of the SI and the RAP were presented to the public. Questions from the public were also addressed at the meeting. The public comment period for the SI/RAP ran from November 7 through December 7, 1994. Public comments were received from the Department on December 27, 1994.

#### **4.1.4 Soil Vapor Extraction System**

The soil vapor extraction (SVE) system operated continuously between September and December 1994 with the exception of days the

system was shut down to replace spent carbon and conduct maintenance. To date, over 1700 pounds of perc have been removed from the subsurface. Daily measurements of the total VOC concentrations in the influent, effluent, mid-stream, and in the vapor monitoring wells continue to be made while the system is operating. These measurements are made using an Organic Vapor Meter (OVM) Model 580B calibrated to a 100 ppm isobutylene standard. Influent concentrations have typically been less than 5 parts per million which would further support the previous conclusion that the soil in the vicinity of the former above ground perc tank has been remediated.

**4.2****Work Planned for the Next Reporting Period**

The SVE system will be operated as designed and as specified in the operating permit. The final Mall Site Investigation Report/Remedial Action Plan including the response to public comments will be submitted to the Department. VW&R will continue activities to gain access to property to site a groundwater treatment system. Pilot testing for the Remedial Action Monitoring Plan is scheduled for February and March.

## **5.0 SCHEDULE**

Revised schedules for the Mall, PSA, and WSO  
Order activities are shown in Tables 3 through 5.  
The dates for completion of activities are  
estimated and are dependent on access and  
subcontractor availability.

## 6.0 REFERENCES

Harding Lawson Associates, 1991. *Soil Boring Investigation, Former VW&R Facility, Boise, Idaho*. December 19.

\_\_\_\_\_, 1992a. *Exhibit 3, Work Plan, Boise Town Square Mall Supplemental Investigation and Final Remediation, Boise, Idaho*. September 8.

\_\_\_\_\_, 1992b. *Quality Assurance Project Plan, Boise Mall and Preliminary Study Area Work Plans, Boise, Idaho*. November 2.

\_\_\_\_\_, 1993a. *Affected Area, Boise Idaho*. Letter to Ron Lane, Idaho Department of Health and Welfare, Division of Environmental Quality. March 24.

\_\_\_\_\_, 1993b. *Soil Boring Sampling and Analysis Plan, Preliminary Study Area, Boise, Idaho*. August 13.

\_\_\_\_\_, 1994a. Letter to Ron Lane, Idaho Department of Health and Welfare, Division of Environmental Quality. May 16.

\_\_\_\_\_, 1994b. *Final Risk Assessment, Boise Towne Square Mall, Boise, Idaho*.

\_\_\_\_\_, 1994c. *Geophysical Sampling and Analysis Plan Preliminary Study Area Order, Boise Idaho*. October 35.

\_\_\_\_\_, 1994d. *Final Draft Site Investigation/Remedial Action Plan, Boise Towne Square Mall, Boise, Idaho*. November 2.





## **TABLES**

**Table 1. Quality Assurance Summary, Quarterly Sampling  
Quarterly Progress Report  
September-December 1994**

Quality Control Sample	Acceptance Criterion <sup>1</sup>	Number of Analyses	Number of Analyses Within Acceptance Criterion	Percent of Analyses Within Acceptance
<u>FIELD</u>				
Trip blank	No compounds detected	29	29	100%
Field duplicate	100% RPD	29	29	100%
<u>LABORATORY</u>				
Method Blank	No compounds detected	58	58	100%
Matrix Spike	60-150%	12	12	100%
Matrix Spike duplicate	60-150%	6	6	100%
Surrogate Spike recovery	70-130%	20	20	100%
Surrogate Spike recovery duplicate	70-130%	2	2	100%

Overall Completeness: 156/156

---

1 Acceptance criterion specified in the QAPP (HLA, 1992b).

**Table 2. Quality Assurance Summary, Additional Well Sampling  
Quarterly Progress Report  
September-December 1994**

Quality Control Sample	Acceptance Criterion <sup>1</sup>	Number of Analyses	Number of Analyses Within Acceptance Criterion	Percent of Analyses Within Acceptance
<u>FIELD</u>				
Trip blank	No compounds detected	29	29	100%
Field duplicate	100% RPD	29	29	100%
<u>LABORATORY</u>				
Method Blank	No compounds detected	29	29	100%
Matrix Spike	60-150%	12	10	83%
Matrix Spike duplicate	60-150%	6	6	100%
Surrogate Spike recovery	70-130%	13	12	92%
Surrogate Spike recovery duplicate	70-130%	2	2	100%

Overall Completeness: 117/120

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1 Acceptance criterion specified in the QAPP (HLA, 1992b).

Table 3 Water Supply Order Schedule

Activity	Schedule Dependency	Estimated Start Date	Estimated Completion Date	Comments
Send out letter to residents		25-Jul-94	29-Jul-94	
Response from residents		1-Aug-94	30-Sep-94	Extended response period by 4 weeks
Follow up on survey		1-Oct-94	31-Oct-94	
Sample Wells		26-Sep-94	24-Feb-95	Will sample wells of residents who return authorization form, 6 wells sampled to date
Evaluate Well Depths	Boise Water Corp. availability	9-Jan-95	28-Feb-95	Dependent on receipt of authorization forms and BWC availability
PSA RA Complete		18-Jan-95	18-Jan-95	Dependent on PSA schedule
Evaluate Options	Dependent on approval of PSA Risk Assessment	15-Feb-95	15-Mar-95	Estimate 3 to 4 weeks after completion of PSA RA
Options Letter to IDEQ/ approval of recommended actions		22-Mar-95	22-Mar-95	Estimate 30 days for IDEQ review and approval of options
Implement options	Dependent on approval from IDEQ			Implement within 30 days of IDEQ approval

Notes:

1. Activities tied to flow chart for WSO activities
2. Assumes a 30-day review and approval process by IDEQ
3. Dependent on subcontractor and BWC availability
4. Actual dates will be updated on a quarterly basis as the task date approaches
5. Evaluation of options will commence upon completion of evaluation of wells and PSA RA.

**Table 4 PSA Order Schedule**

<b>Activity</b>	<b>Schedule Dependency</b>	<b>Estimated Start Date</b>	<b>Estimated Completion Date</b>	<b>Comments</b>
Complete Soil Boring SAP field program (install extraction/ monitoring wells on Five Mile Rd)	Access agreements and subcontractor availability	6-Jul-94	31-Jul-94	Northernmost extraction/ monitoring well installation expected Jan 95.
Sample extraction well/ prepare letter report		15-Aug-94	23-Sep-94	
Geophysical Sampling and Analysis Plan	2 weeks after completion of Soil Boring Field Program and receipt of final laboratory data	25-Oct-94	10/25/94	Actual submittal date
Geophysical Field Work	No additional field work required, SAP approved 23-Nov-94	23-Nov-94	23-Nov-94	
Phase I Site Investigation/ Risk Assessment Report	8 weeks after completion of geophysical field work	31-Jan-95	31-Jan-95	Extension requested revised submittal date - 31-Jan-95
Phase II Work Plan	Submitted concurrently with Phase I Report	31-Jan-95	31-Jan-95	Extension requested revised submittal date - 31-Jan-95
Phase II Field Work	Begins 2 weeks after IDEQ approval of Phase II Work Plan	14-Mar-95	11-Apr-95	
Phase II Report	4 weeks after receipt of all final laboratory data from field program	6-Jun-95	6-Jun-95	
Remedial Action Plan	10 weeks after IDEQ approval of Phase II Report	22-Aug-95	22-Aug-95	
Public Comment Period	Begins with IDEQ approval of RAP			

**Notes:**

1. Assumes a 30-day approval process by IDEQ
2. Dependent on field conditions and subcontractor availability
3. Actual dates will be updated on a quarterly basis as the task date approaches

**Table 5 Boise Mall Order Schedule**

Activity	Schedule Dependency	Estimated Start Date	Estimated Completion Date	Comments
Draft Mall SI/RAP		27-Jul-94	27-Jul-94	Actual submittal on 27-Jul-94
Final Draft Mall SI/RAP	Dependent on resolution of comments.	2-Sep-94	3-Nov-94	Actual submittal on 2-Nov-94
Public Comment Period		7-Nov-94	7-Dec-94	Comment period may be extended for an additional 30 days
Response to Public Comments	Dependent on receipt of comments from IDEQ	27-Dec-94	Jan-95	
Final Mall SI/RAP	14 days after receipt of public comments	Jan-95	Jan-95	
Remedial Action Implementation Monitoring Plan	45 days after Final Mall SI/RAP	3-Feb-95	17-Mar-95	Assumes 30 day preparation and 30 day IDEQ Review Period.
Implement Remedial Action	6 weeks after approval of Final RAIM Plan	23-Apr-95	9-Jun-95	Assumes 14 day response period for draft plan.

**Notes:**

1. Assumes a 30-day approval process by IDEQ

12/29/94 2. Actual dates will be updated on a quarterly basis as the task date approaches

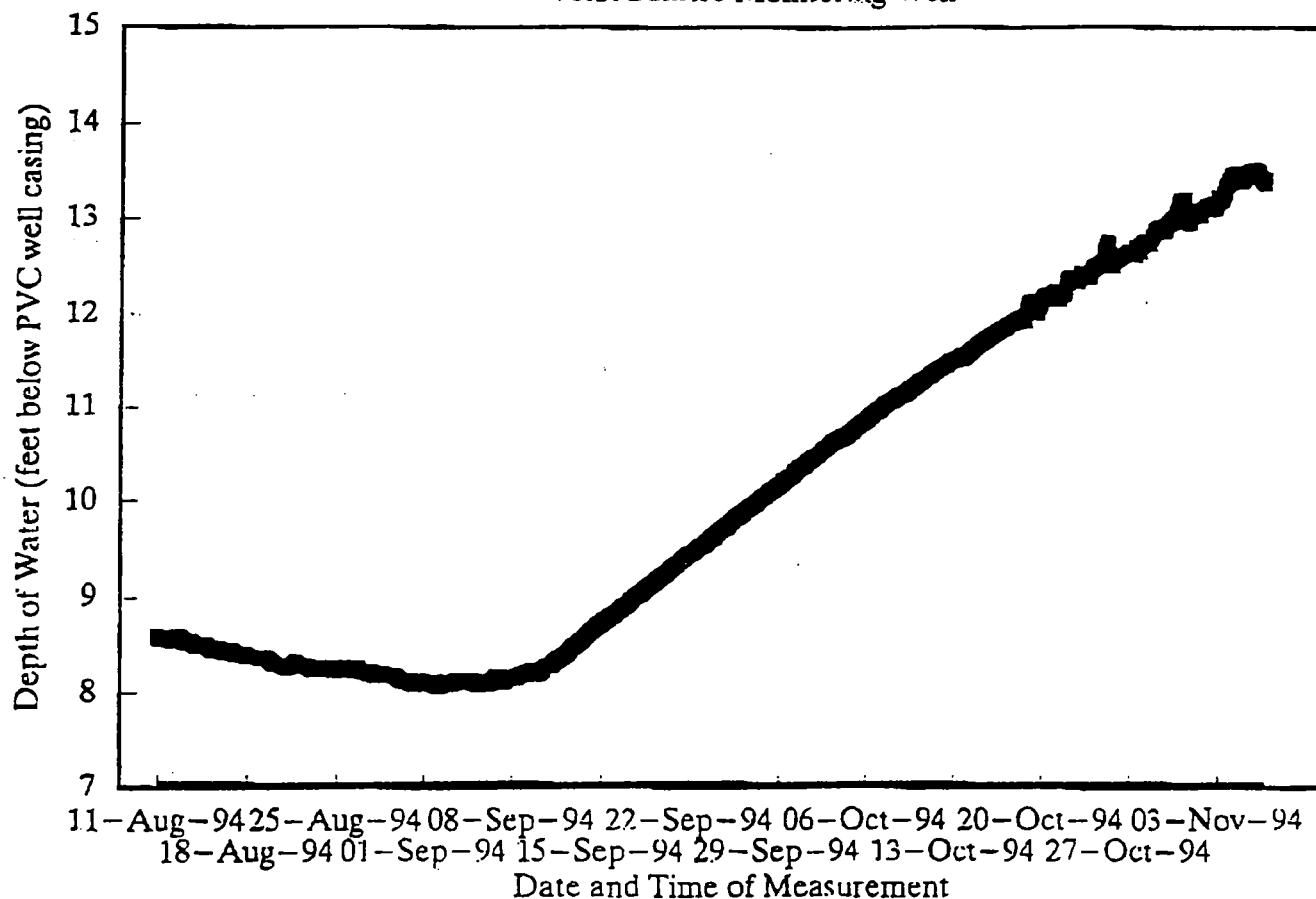


**PLATES**



# Depth to Water

VW&R Sunrise Monitoring Well



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**Water Level Hydrograph for Sunrise Well**  
October - December 1994 Quarterly Report  
Van Waters & Rogers Inc.  
Boise, Idaho

PLATE

**1**

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December 28, 1994

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Van Waters & Rogers Inc.  
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Kirkland, Washington 98033

Copy 3: Mr. Allan Bakalian  
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6100 Carillon Point  
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Attorneys at Law  
5400 Columbia Center  
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October - December  
Boise, Idaho

December 28, 1994

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